

REMARKS

Claims 1-4 are pending. By this Amendment, the Specification and Claims 1-4 have been amended. As the amendments are merely to address informalities, Applicants respectfully submit that no new matter is presented herein.

Specification

The disclosure is objected to for informalities therein. The Applicants have amended the Specification in a manner believed to be fully responsive to the objection. Withdrawal of the objection is respectfully requested.

Claim Objections

Claims 1-4 are objected to for informalities therein. The Applicants have amended the claims in a manner believed to be fully responsive to the objection. Withdrawal of the objection is respectfully requested.

Claim Rejections – 35 U.S.C. §112

Claims 1-4 are rejected under 35 U.S.C. §112, second paragraph. Applicants have amended the claims in a manner believed to be fully responsive to the rejection. Withdrawal of the rejection is respectfully requested.

Claim Rejections -- 35 U.S.C. §103

Claims 1-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,715,772 to Kanayama in view of U.S. Patent No. 5,046,851 to Morgan. Applicants respectfully traverse the rejection for at least the following reason(s).

Independent Claim 1 recites a method for mounting an automotive window glass by which a window glass which is at least curved in a crosswise direction corresponding

to a width direction of a body of an automobile, the method includes, among other steps: irradiating right and left ends of the window glass approximately at a same position as each other at least in the crosswise direction of the window glass with at least one slit laser beam irradiated downward from an upward position at an angle with regard to a perpendicular direction relative to a surface of the window glass held by a window glass holding member across the right and the left ends of the window glass; photographing bent laser beams, which are formed, ***using the at least one slit laser beam irradiated across the right and left ends of the window glass, the window glass mounting surface and the surface of the automobile body***, the bent laser beams being formed by clearances in the perpendicular direction relative to the surface of the window glass, the clearances being located between the automobile body and the window glass; calculating, at least, ***a difference between the clearances, in the perpendicular direction relative to the surface of the window glass, between the right and left ends of the window glass and the surface of the automobile body based on a predetermined processed image generated by image processing of photographed images of the laser beams.***

Independent Claim 3 recites a device for mounting an automotive window glass by which a window glass which is at least curved in a crosswise direction corresponding to a width direction of a body of an automobile, wherein the device includes, among other features, a pair of slit laser beam irradiating units for irradiating right and left ends of the window glass approximately at a same position as each other at least in the crosswise direction of the window glass with at least one slit laser beam irradiated downward from an upward position at an angle with regard to a perpendicular direction

relative to a surface of the window glass held by a window glass holding member across the right and the left ends of the window glass; a pair of photographing units for photographing bent laser beams, which are formed, ***using the at least one slit laser beam irradiated across the right and left ends of the window glass, the window glass mounting surface and the surface of the body***, the beams being formed by clearances in the perpendicular direction relative to the surface of the window glass, the clearances being located between the automobile body and the window glass; an image processing unit for generating a predetermined processed image by image processing of images of the bent laser beams, which have been photographed by the photographing unit; and a calculating unit for calculating, at least, ***a difference between the clearances, in the perpendicular direction relative to the surface of the window glass, between the right and left ends of the window glass and the surface of the automobile body based on the processed image generated by the image processing unit.***

As emphasized above, in the method and device recited by Claims 1 and 3, respectively, a difference between the clearances in the perpendicular direction relative to the surface the window glass, wherein Applicants note for the convenience of the Examiner that the perpendicular direction corresponds to the Z-axis direction in a standard XYZ coordinate system, between the right and left ends of the window glass and the surface of the automobile body are calculated based on a predetermined processed image generated by image processing of photographed images of the (slit) laser beams. The slit laser beams are irradiated across the right and the left ends of the

window glass, the window glass mounting surface and a surface of the automobile body.

Put simply, the inventive method and device recited by Claims 1 and 3, respectively, require that the clearances in the perpendicular direction relative to the surface the window glass, i.e., the Z-axis direction, is calculated based on the slit laser beams across the window glass and the automobile body. Applicants respectfully refer to Figures 8A and 8B of the instant application in which the clearances in both X-axis direction and the Z-axis direction are calculated.

In the system disclosed by of Kanayama, Applicants note that the slit laser beam is irradiated from a projector 6, and the slit beam is taken by the camera (C1, C2). Applicants note that the cameras C3 to C6 are not used for taking the images of the slit laser beam. Based on the image of the slit laser beam taken by the camera (C1, C2), as shown in FIGS. 11 and 12, a distance ($\Delta \sim Hl$, ΔHr) between an edge of the window glass and the frame in the right and left direction is calculated.

That is, in Kanayama's system, a clearance in the X-axis direction relative to the surface of the window glass is calculated by processing the image of the camera (C1, C2).

Put another way, Kanayama does not disclose at least calculating the clearances in a direction that is perpendicular relative to the surface of the window glass, the perpendicular direction corresponding to the Z-axis direction of a standard XYZ coordinate system, based on the slit laser beams across the window glass and the automobile body.

As for the system taught by Morgan, as shown in FIG. 10, the camera 29 only takes an image of automobile body 10, and the camera 29 does not take an image of window glass 15. Accordingly, Morgan, like Katayama, does not disclose calculating clearances in a direction that is perpendicular relative to the surface of the window glass, the perpendicular direction corresponding to the Z-axis direction of a standard XYZ coordinate system, based on the slit laser beams across the window glass and the automobile body. Therefore, the Morgan's system can not calculate the clearances in a direction that is perpendicular relative to the surface of the window glass, the perpendicular direction relative to the surface of the window glass corresponding to the Z-axis direction of a standard XYZ coordinate system, based on the slit laser beams across the window glass and the automobile body.

Accordingly, the system taught by Morgan does not cure or otherwise address the above described deficiencies of Kanayama.

Applicants respectfully submit that Kanayama and Morgan, alone or in any combination thereof, fail to teach or suggest the invention recited by Claims 1 and 3. As such, Applicants respectfully submit that Claims 1 and 3 are not rendered obvious in view of, Kanayama and Morgan, alone or in any combination thereof. Thus, Applicants respectfully submit that Claims 1 and 3 should be deemed allowable.

Claim 2 depends from Claim 1; and Claim 4 depends from Claim 3. It is respectfully submitted that these dependent claims be deemed allowable for the same reasons Claims 1 and 3, respectfully are allowable, as well as for the additional subject matter recited therein.

Applicants respectfully request withdrawal of the rejection.

Conclusion

In view of the foregoing, Applicants respectfully request reconsideration of the application, withdrawal of the outstanding objections and rejections, allowance of Claims 1-4, and the prompt issuance of a Notice of Allowability.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing attorney docket number 107355.00182.**

Respectfully submitted,



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